

transitioning from the first type of tactilely distinguishable formation to the second type to a reservoir and to displace fluid from the reservoir to those particular regions transitioning from the second type of tactilely distinguishable formation to the first type of tactilely distinguishable formation. However, any other suitable type of fluid flow within the tactile interface layer **100** may be used.

#### 4. Variations of the Preferred Embodiments

**[0031]** The method **S100** of the preferred embodiments may also include the step of manipulating the device **10** to provide a notification of a first type for a predicted key and a notification of a second type for an unpredicted key **S170**. Combining the notification provided by the device **10** and the tactile guidance provided by the tactile interface layer **100** may further assist the user in entering their desired input in a potentially faster manner. In a first variation, the step of manipulating the device **10** to provide a notification may include manipulating the device **10** to provide a notification to assist the user in selecting a particular key prior to input. In a first example, the device **10** may include a display **150** and the step of manipulating the device **10** to provide a notification includes manipulating the device to provide a visual guide to the user. In a first example the display **150** may display an image corresponding to each particular region that cooperates with the tactile interface layer **100** to represent a keyboard. The first type of notification may be a brighter image or a first color for a predicted key and a less bright or a second color image for an unpredicted key, thus providing additional visual assistance to the user. Alternatively, in the variation where the first and second types of tactilely distinguishable formations are distinct in diameter and/or width, the corresponding image may emulate the width of the tactilely distinguishable formation. In a second variation, the step of manipulating the device **10** to provide a notification may include manipulating the device to provide a notification when an input is detected. In a first example, the device may include a speaker that produces a sound of a first type when a predicted key is selected and a sound of a second type (for example, less loud) when an unpredicted key is selected. In another example, the device may include a vibration inducer that provides a vibration of a first magnitude when a predicted key is selected and a vibration of a second magnitude (for example, lower magnitude), when an unpredicted key is selected. However, the device **10** may provide any other suitable type of notification.

**[0032]** As a person skilled in the art will recognize from the previous detailed description and from the figures and claims, modifications and changes can be made to the preferred embodiments of the invention without departing from the scope of this invention defined in the following claims.

We claim:

1. A method for assisting user input to a device, comprising the steps of:

- providing a user interface to retrieve a user input;
- providing a tactile interface layer that defines a surface and includes a volume of fluid and a displacement device that manipulates the volume of fluid to deform a plurality of particular regions of the surface into tactilely distinguishable formations that each represent a key of a key interface;
- allowing the user to provide input through the key interface;

predicting a subsequent key input when a user provides an input through the key interface; and

manipulating the volume of fluid to deform the plurality of particular regions into one of at least two types of tactilely distinguishable formations: a first type for tactilely distinguishable formations that correspond to a predicted key input and a second type for tactilely distinguishable formations that correspond to unpredicted key input.

2. The method of claim **1**, wherein the step of manipulating the volume of fluid to deform the plurality of particular regions into one of at least two types of tactilely distinguishable formations includes manipulating the volume of fluid to deform a tactilely distinguishable formation of the first type into a tactilely distinguishable formation of the second type.

3. The method of claim **1**, wherein the step of manipulating the volume of fluid to deform the plurality of particular regions into one of at least two types of tactilely distinguishable formations includes manipulating the volume of fluid to deform a tactilely distinguishable formation of the second type into a tactilely distinguishable formation of the first type.

4. The method of claim **1**, wherein the step of manipulating the volume of fluid to deform the plurality of particular regions into one of at least two types of tactilely distinguishable formations includes manipulating the volume of fluid to deform an undeformed particular region of the surface into one of the two types of tactilely distinguishable formations.

5. The method of claim **1**, wherein the first type of tactilely distinguishable formation is stiffer than the second type of tactilely distinguishable formation.

6. The method of claim **1**, wherein the first type of tactilely distinguishable formation is of a first shape and the second type of tactilely distinguishable formation is of a second shape.

7. The method of claim **6**, wherein the first type of tactilely distinguishable formation is of a taller height than the second type of tactilely distinguishable formation.

8. The method of claim **7**, wherein the second type of tactilely distinguishable formation is of a height that is substantially zero relative to the surface.

9. The method of claim **1**, wherein the first type of tactilely distinguishable formation is substantially tactilely distinguishable from the surface and the second type of tactilely distinguishable formation is substantially tactilely indistinguishable from the surface.

10. The method of claim **1**, further comprising manipulating the device to provide a notification of a first type for a predicted key and a notification of a second type for an unpredicted key.

11. The method of claim **10**, wherein the device includes a display that displays images corresponding to each particular region to cooperate with the tactile interface layer to represent a key interface, and wherein the first type of notification is an image of a first type and the second type of notification is an image of a second type different from the first type.

12. The method of claim **10**, wherein the device includes a display that displays images corresponding to each particular region to cooperate with the tactile interface layer to represent a key interface, and wherein the first type of notification is an image of a first size and the second type of notification is an image of a second size that is smaller than the first size.

13. The method of claim **10**, wherein the step of manipulating the device to provide a notification of a first type and a second type includes manipulating the device to provide the